



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.       | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|-------------|----------------------|---------------------|------------------|
| 10/812,913            | 03/31/2004  | Yukinori Otsuka      | 023484-0164         | 5704             |
| 22428                 | 7590        | 11/17/2005           | EXAMINER            |                  |
| FOLEY AND LARDNER LLP |             |                      | KING, BRADLEY T     |                  |
| SUITE 500             |             |                      | ART UNIT            |                  |
| 3000 K STREET NW      |             |                      | PAPER NUMBER        |                  |
| WASHINGTON, DC 20007  |             |                      | 3683                |                  |

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |                  |  |
|------------------------------|-----------------|------------------|--|
| <b>Office Action Summary</b> | Application No. | Applicant(s)     |  |
|                              | 10/812,913      | OTSUKA, YUKINORI |  |
|                              | Examiner        | Art Unit         |  |
|                              | Bradley T. King | 3683             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2005.
- 2a) ☒ This action is FINAL.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>09-05</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-7, 9-10, 12-13, and 15-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites "the axially middle portion". There is insufficient antecedent basis for this limitation in the claims.

Claim 3 recites "has such a structure as to permit". The meaning of this limitation is not clear.

Claim 16 recites "wherein each electromagnetic valve includes a solenoid coil that has terminal pins". The meaning of this limitation is confusing as a similar recitation is set forth in parent claim 1.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-4, 9-10 14, 20-21, 23 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 9-118215.

JP 9-118215 discloses all the limitations of the instant claims including; a yoke of magnetic metal 25-26, the yoke including upper 25-26a and lower 25-26ba walls that are integrally connected by side walls; a slit in the upper wall of the yoke (spacing between 25-26a), the slit extending along a longitudinal axis of the yoke between axially opposed ends of the yoke, and solenoid coils 23 having terminal members 27-28 projected outward from the yoke through the slit, wherein the terminal members of every pair of the electromagnetic valves, which face each other with respect to the longitudinal axis of the yoke, are arranged close to one another and face one another. See figure 3.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 5-7, 12-13, 22, 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 9-118215.

JP 9-118215 discloses all the limitations of the instant claims with exception to a integral resilient strip in the lower wall. JP 9-118215 resilient strips 31 (figure 5 and 6) for biasing coil assemblies. It would have been obvious to one of ordinary skill in the art

Art Unit: 3683

at the time the invention was made to make the resilient strip element of JP 9-118215 integral to the yoke structure to ensure proper retention and positioning of the coil assembly without increasing parts. Also note *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965).

Regarding claims 22, 24 and 26, note the middle portion of the spring 31 would form the recited middle portion.

Claims 11, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 9-118215 in view of WO 00/70628.

JP 9-118215 discloses all the limitations of the instant claims with exception to the explicit disclosure of the terminal portions contacting the slit edges. WO 00/70628 disclose a similar valve yoke structure and further teach the utilization of a slit edge to hold and maintain terminal ends of coil members. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the slit edge of JP 9-118215 to hold the terminal ends as taught by WO 00/70628 to improve the retention and positioning of the electrical connectors, thereby increasing the durability of the device.

Regarding claims 15-19, JP 9-118215, as applied to claim 12 above, discloses all the limitations of the instant claims with exception to the explicit disclosure of the terminal portions contacting the slit edges. WO 00/70628 disclose a similar valve yoke structure and further teach the utilization of a slit edge to hold and maintain terminal ends of coil members. It would have been obvious to one of ordinary skill in the art at

Art Unit: 3683

the time the invention was made to utilize the slit edge of JP 9-118215 to hold the terminal ends as taught by WO 00/70628 to improve the retention and positioning of the electrical connectors, thereby increasing the durability of the device.

### ***Double Patenting***

Applicant is advised that should claim 4 be found allowable, claim 9 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Please check the dependency of the claims.

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 3683

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley T. King whose telephone number is (571) 272-7117. The examiner can normally be reached on 11:00-7:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on (571) 272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BTK

  
JAMES MCCLELLAN  
PRIMARY EXAMINER  
11/14/05